

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.		
Application/Service <b>Light Oil Control Box</b>				Tag No. <b>LOCB-CV</b>		
Manufacturer <b>Fisher</b>		Model No. <b>n/a</b>		Serial No. <b>n/a</b>		
Instrument			<b>X</b>			
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer	
Accuracy	Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading			
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>	Characteristic <b>Linear</b>	Special <b>Control Valve</b>		
Output Signal Range and Units						
Lo Range Value <b>0</b>	Hi Range Value <b>100</b>	Units <b>Percent</b>	Characteristic <b>Linear</b>	Special		
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4	0	0.0	0.000	0.0	0.000
25%	8	25	20.0	-5.000	25.0	0.000
50%	12	50	45.0	-5.000	50.0	0.000
75%	16	75	70.0	-5.000	75.0	0.000
100%	20	100	95.0	-5.000	100.0	0.000
Comments						
Calibration Equipment Used						
Calibrator	Description	Model No.	Instrument ID	NIST Cert. No.		
Input Device	Fluke Calibrator	725	On File	On File		
Output Device	Local Display					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By	Date Signed			
PASS Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Light Oil Control Box</b>					Tag No. <b>LOCB-IP</b>	
Manufacturer <b>Dwyer</b>		Model No. <b>2342</b>			Serial No. <b>703</b>	
Instrument	<b>X</b>					
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>3</b>	Hi Range Value <b>15</b>	Units <b>PSIG</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4	3	1.190	-15.083	3.000	0.000
25%	8	6	3.940	-17.167	6.000	0.000
50%	12	9	6.950	-17.083	9.000	0.000
75%	16	12	9.930	-17.250	12.000	0.000
100%	20	15	12.830	-18.083	15.000	0.000
Comments						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	Fluke Calibrator	725		On File	On File	
Output Device	Fluke Calibrator	725		On File	On File	
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Light Oil Control Box</b>					Tag No. <b>LOCB-MAG</b>	
Manufacturer <b>Magnehelic</b>		Model No. <b>N/A</b>			Serial No. <b>N/A</b>	
Instrument		<b>X</b>				
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>10</b>	Hi Range Value <b>50</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>10</b>	Hi Range Value <b>50</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	10	10	10	10.000	10	0.000
25%	20	20	20	0.000	20	0.000
50%	30	30	29	-3.750	29	-2.500
75%	40	40	39	-2.500	39	-2.500
100%	50	50	49	-2.500	49	-2.500
Comments						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	<b>Fluke Calibrator</b>	<b>725</b>		<b>On File</b>	<b>On File</b>	
Output Device	<b>Local</b>					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Light Oil Control Box</b>					Tag No. <b>LOCB-PT</b>	
Manufacturer <b>Rosemount</b>		Model No. <b>3051CD1A22A1AB4K5</b>			Serial No. <b>1187845</b>	
Instrument	<b>X</b>					
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	-2	4	3.897	-0.644	3.990	-0.062
25%	2	8	7.952	-0.300	8.000	0.000
50%	6	12	11.947	-0.331	12.010	0.062
75%	10	16	15.964	-0.225	16.110	0.687
100%	14	20	19.973	-0.169	20.003	0.019
Comments						
Transmitter needs to be relocated above tap.						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	<b>HAND PUMP</b>	<b>DWYER</b>				
Output Device	<b>Fluke Calibrator</b>	<b>725</b>		<b>On File</b>	<b>On File</b>	
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.		
Application/Service <b>Light Oil Control Box</b>				Tag No. <b>LOCB-YC</b>		
Manufacturer <b>Yokogawa</b>		Model No. <b>UT-550</b>		Serial No. <b>TIC10628-303</b>		
Instrument		<b>X</b>				
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer	
Accuracy	Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading			
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>	Characteristic <b>Linear</b>	Special		
Output Signal Range and Units						
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH2O</b>	Characteristic <b>Linear</b>	Special		
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4	-2	-1.99	0.063	-2.00	0.000
25%	8	2	2.01	0.062	2.00	0.000
50%	12	6	6.02	0.125	6.00	0.000
75%	16	10	10.02	0.125	10.00	0.000
100%	20	14	14.02	0.125	14.00	0.000
Comments						
Calibration Equipment Used						
Calibrator	Description	Model No.	Instrument ID	NIST Cert. No.		
Input Device	<b>Fluke Calibrator</b>	<b>725</b>	<b>On File</b>	<b>On File</b>		
Output Device	<b>Local Display</b>					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By	Date Signed			
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.	
Application/Service <b>Platform Control Box</b>				Tag No. <b>PCB-CV</b>	
Manufacturer <b>PMV</b>		Model No. <b>P-1200</b>		Serial No. <b>158910</b>	
Instrument	<b>X</b>				
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer
Accuracy	Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units					
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>	Characteristic <b>Linear</b>	Special	
Output Signal Range and Units					
Lo Range Value <b>0</b>	Hi Range Value <b>100</b>	Units <b>Percent</b>	Characteristic <b>Linear</b>	Special	
Instrument Condition as Found					
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left % Error As Left
0%	4.00	0.00			
25%	8.00	25.00			
50%	12.00	50.00			
75%	16.00	75.00			
100%	20.00	100.00			
Comments					
Note: control valve is span 0 to 20 percent					
needs new controller on control valve					
Calibration Equipment Used					
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.
Input Device	<b>Fluke Calibrator</b>	<b>725 700PD5</b>		<b>ON FILE</b>	<b>ON FILE</b>
Output Device	<b>LOCAL</b>				
Approvals					
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed	
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature			

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Platform Control Box</b>					Tag No. <b>PCB-IP</b>	
Manufacturer <b>Brandt</b>		Model No. <b>5131</b>			Serial No. <b>M513000F016280</b>	
Instrument	<b>X</b>					
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>3</b>	Hi Range Value <b>15</b>	Units <b>PSIG</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4.00	3.00	4.790	14.917	4.790	14.917
25%	8.00	6.00	7.130	9.417	7.130	9.417
50%	12.00	9.00	10.156	9.633	10.156	9.633
75%	16.00	12.00	14.144	17.867	14.144	17.867
100%	20.00	15.00	16.169	9.742	16.169	9.742
Comments						
IP IS BAD NEED NEW DEVICE						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	Fluke Calibrator	725	700PD5	ON FILE	ON FILE	
Output Device	Fluke Calibrator	725		ON FILE	ON FILE	
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Platform Control Box</b>					Tag No. <b>PCB-YC2</b>	
Manufacturer <b>Yokogawa</b>		Model No. <b>UT-550</b>			Serial No. <b>N/A</b>	
Instrument		<b>X</b>				
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>1</b>	Hi Range Value <b>5</b>	Units <b>VDC</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	1.00	-2.00	-2.000	0.000	-2.000	0.000
25%	2.00	2.00	2.500	3.125	2.500	3.125
50%	3.00	6.00	6.800	5.000	6.800	5.000
75%	4.00	10.00	10.500	3.125	10.500	3.125
100%	5.00	14.00	15.000	6.250	15.000	6.250
Comments						
CONTROLLER WILL NT TRACK INPUT.						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	<b>Fluke Calibrator</b>	<b>725</b>		<b>ON FILE</b>	<b>ON FILE</b>	
Output Device	<b>Local Display</b>					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Process Water Decanter</b>					Tag No. <b>PWD-CV</b>	
Manufacturer <b>Fisher</b>		Model No. <b>1052</b>			Serial No. <b>15363423</b>	
Instrument			<b>X</b>			
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>0</b>	Hi Range Value <b>100</b>	Units <b>Percent</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4.00	0.00	0	0.000	0	0.000
25%	8.00	25.00	25	0.000	25	0.000
50%	12.00	50.00	50	0.000	50	0.000
75%	16.00	75.00	75	0.000	75	0.000
100%	20.00	100.00	100	0.000	100	0.000
Comments						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	Fluke Calibrator	725		8218055	1000195484	
Output Device	Local Display					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Process Water Decanter</b>					Tag No. <b>PWD-MAG</b>	
Manufacturer <b>Magnehelic</b>		Model No. <b>n/a</b>			Serial No. <b>n/a</b>	
Instrument			<b>X</b>			
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>10</b>	Hi Range Value <b>50</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>10</b>	Hi Range Value <b>50</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	10	10	15	12.500	10	0.000
25%	20	20	24	10.000	24	10.000
50%	30	30	35	12.500	35	12.500
75%	40	40	45	12.500	45	12.500
100%	50	50	60	25.000	60	25.000
Comments						
MAGNEHELIC NEEDS TO BE REPLACED.						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	Fluke Calibrator	725		8218055	1000195484	
Output Device	Local Display					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.	
Application/Service <b>Process Water Decanter</b>				Tag No. <b>PWD-PT</b>	
Manufacturer <b>Rosemount</b>		Model No. <b>3051 CD1A22A1AB4K5</b>		Serial No. <b>703218</b>	
Instrument Type			<b>X</b>		
	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading	
Input Signal Range and Units					
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special
Output Signal Range and Units					
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special
Instrument Condition as Found					
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left % Error As Left
0%	-2	4	4.021	0.131	4.021 0.131
25%	2	8	8.048	0.300	8.048 0.300
50%	6	12	12.056	0.350	12.056 0.350
75%	10	16	16.027	0.169	16.027 0.169
100%	14	20	20.035	0.219	20.035 0.219
Comments					
TRANSMITTER NEEDS TO BE RE-LOCATED ABOVE TAP.					
Calibration Equipment Used					
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.
Input Device	HAND PUMP	DWYER			
Output Device	FLUKE METER	725		on file	on file
Approvals					
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed	
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature			

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>			Contract/P.O. No.		
Application/Service <b>Process Water Decanter</b>			Tag No. <b>PWD-YC</b>		
Manufacturer <b>Yokogawa</b>		Model No. <b>UT-550</b>		Serial No. <b>T 5007RH188-738</b>	
Instrument			<b>X</b>		
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading	
Input Signal Range and Units					
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special
Output Signal Range and Units					
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH2O</b>		Characteristic <b>Linear</b>	Special
Instrument Condition as Found					
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left % Error As Left
0%	4	-2	-2.0	0.000	-2.0 0.000
25%	8	2	2.0	0.000	2.0 0.000
50%	12	6	6.0	0.000	6.0 0.000
75%	16	10	10.0	0.000	10.0 0.000
100%	20	14	13.9	-0.625	13.9 -0.625
Comments					
CONTROLLER WILL NOT CONTROLL VALVE.					
Calibration Equipment Used					
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.
Input Device	Fluke Calibrator	725		8218055	1000195484
Output Device	Local Display				
Approvals					
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed	
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature			

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.	
Application/Service <b>Tar Tank Control Box</b>				Tag No. <b>TTCB-CV</b>	
Manufacturer <b>Fisher</b>		Model No. <b>n/a</b>		Serial No. <b>n/a</b>	
Instrument			<b>X</b>		
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading	
Input Signal Range and Units					
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special <b>Control Valve</b>
Output Signal Range and Units					
Lo Range Value <b>0</b>	Hi Range Value <b>100</b>	Units <b>Percent</b>		Characteristic <b>Linear</b>	Special
Instrument Condition as Found					
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left % Error As Left
0%	4	0	0	0.000	0 0.000
25%	8	25	25	0.000	25 0.000
50%	12	50	50	0.000	50 0.000
75%	16	75	75	0.000	75 0.000
100%	20	100	100	0.000	100 0.000
Comments					
Calibration Equipment Used					
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.
Input Device	<b>Fluke Calibrator</b>	<b>725</b>		<b>On File</b>	<b>On File</b>
Output Device	<b>Local Display</b>				
Approvals					
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed	
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature			

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.		
Application/Service <b>Tar Tank Control Box</b>				Tag No. <b>TTCB-IP</b>		
Manufacturer <b>Brandt</b>		Model No. <b>STD5131</b>		Serial No. <b>M513000F-16278</b>		
Instrument Type	<b>X</b>					
	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer	
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>	Characteristic <b>Linear</b>	Special		
Output Signal Range and Units						
Lo Range Value <b>3</b>	Hi Range Value <b>15</b>	Units <b>PSIG</b>	Characteristic <b>Linear</b>	Special		
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4	3	1.996	-8.367	1.996	-8.367
25%	8	6	3.856	-17.867	3.856	-17.867
50%	12	9	7.870	-9.417	7.870	-9.417
75%	16	12	9.990	-16.750	9.990	-16.750
100%	20	15	13.990	-8.417	14.980	-0.167
Comments						
IP BAD NEED TO REPLACE						
Calibration Equipment Used						
Calibrator	Description	Model No.	Instrument ID	NIST Cert. No.		
Input Device	Fluke Calibrator	725	On File	On File		
Output Device	Fluke Calibrator	725	On File	On File		
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By	Date Signed			
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Tar Tank Control Box</b>					Tag No. <b>TTCB-MAG</b>	
Manufacturer <b>Magnehelic</b>		Model No. <b>2000-oc</b>			Serial No. <b>R98085RM15</b>	
Instrument	<b>X</b>					
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>0.10</b>	Hi Range Value <b>0.50</b>	Units <b>PSIG</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>0.10</b>	Hi Range Value <b>0.50</b>	Units <b>PSIG</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	0.10	0.10	0.10	0.000	0.10	0.000
25%	0.20	0.20	0.15	-12.500	0.15	-12.500
50%	0.30	0.30	0.15	-37.500	0.15	-37.500
75%	0.40	0.40	0.15	-62.500	0.15	-62.500
100%	0.50	0.50	0.15	-87.500	0.15	-87.500
Comments						
BAD NEED TO REPLACE						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	Fluke Calibrator	725		On File	On File	
Output Device	Local					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>					Contract/P.O. No.	
Application/Service <b>Tar Tank Control Box</b>					Tag No. <b>TTCB-MAG</b>	
Manufacturer <b>Magnehelic</b>		Model No. <b>2000-oc</b>			Serial No. <b>R98085RM15</b>	
Instrument	<b>X</b>					
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>0.10</b>	Hi Range Value <b>0.50</b>	Units <b>PSIG</b>		Characteristic <b>Linear</b>	Special	
Output Signal Range and Units						
Lo Range Value <b>0.10</b>	Hi Range Value <b>0.50</b>	Units <b>PSIG</b>		Characteristic <b>Linear</b>	Special	
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	0.10	0.10	0.10	0.000	0.10	0.000
25%	0.20	0.20	0.15	-12.500	0.15	-12.500
50%	0.30	0.30	0.15	-37.500	0.15	-37.500
75%	0.40	0.40	0.15	-62.500	0.15	-62.500
100%	0.50	0.50	0.15	-87.500	0.15	-87.500
Comments						
BAD NEED TO REPLACE						
Calibration Equipment Used						
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.	
Input Device	Fluke Calibrator	725		On File	On File	
Output Device	Local					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.	
Application/Service <b>Tar Tank Control Box</b>				Tag No. <b>TTCB-PT</b>	
Manufacturer <b>Ashcroft</b>		Model No. <b>1XLDP</b>		Serial No. <b>81000122</b>	
Instrument Type	<b>X</b>				
	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading	
Input Signal Range and Units					
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH20</b>		Characteristic <b>Linear</b>	Special
Output Signal Range and Units					
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH20</b>		Characteristic <b>Linear</b>	Special
Instrument Condition as Found					
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left % Error As Left
0%	-2	4			
25%	2	8			
50%	6	12			
75%	10	16			
100%	14	20			
Comments					
Will not calibrate told Charlie needs to be replaced					
Reading 4 " high					
Calibration Equipment Used					
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.
Input Device	<b>HAND PUMP</b>	<b>DWYER</b>			
Output Device	<b>Fluke Calibrator</b>	<b>725</b>		<b>On File</b>	<b>On File</b>
Approvals					
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed	
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature			

## Osborn, Bill

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**From:** John Horton [jhorton24@aol.com]  
**Sent:** Tuesday, May 03, 2011 11:29 AM  
**To:** Osborn, Bill  
**Subject:** PASS 3 CAL. SHEETS  
**Attachments:** LOCB-CV.xls; LOCB-IP.xls; LOCB-MAG.xls; LOCB-PT.xls; LOCB-YC.xls; PCB-CV.xls; PCB-IP.xls; PCB-PT.xls; PCB-YC1.xls; PCB-YC2.xls; PWD-CV.xls; PWD-MAG.xls; PWD-PT.xls; PWD-YC.xls; TTCB-CV.xls; TTCB-IP.xls; TTCB-MAG.xls; TTCB-PT.xls; TTCB-YC.xls; WOCB-CV.xls; WOCB-IP.xls; WOCB-MAG.xls; WOCB-PT.xls; WOCB-YC.xls

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>			Contract/P.O. No.			
Application/Service <b>Process Water Decanter</b>			Tag No. <b>PWD-YC</b>			
Manufacturer <b>Yokogawa</b>		Model No. <b>UT-550</b>		Serial No. <b>T 5007RH188-738</b>		
Instrument			<b>X</b>			
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer	
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>	Characteristic <b>Linear</b>	Special		
Output Signal Range and Units						
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH2O</b>	Characteristic <b>Linear</b>	Special		
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4	-2	-2.0	0.000	-2.0	0.000
25%	8	2	2.0	0.000	2.0	0.000
50%	12	6	6.0	0.000	6.0	0.000
75%	16	10	10.0	0.000	10.0	0.000
100%	20	14	13.9	-0.625	13.9	-0.625
Comments						
<b>CONTROLLER WILL NOT CONTROLL VALVE.</b>						
Calibration Equipment Used						
Calibrator	Description	Model No.	Instrument ID	NIST Cert. No.		
Input Device	<b>Fluke Calibrator</b>	<b>725</b>	<b>8218055</b>	<b>1000195484</b>		
Output Device	<b>Local Display</b>					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By	Date Signed			
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.	
Application/Service <b>Tar Tank Control Box</b>				Tag No. <b>TTCB-CV</b>	
Manufacturer <b>Fisher</b>		Model No. <b>n/a</b>		Serial No. <b>n/a</b>	
Instrument Type			<b>X</b>		
	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer
Accuracy		Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading	
Input Signal Range and Units					
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>		Characteristic <b>Linear</b>	Special <b>Control Valve</b>
Output Signal Range and Units					
Lo Range Value <b>0</b>	Hi Range Value <b>100</b>	Units <b>Percent</b>		Characteristic <b>Linear</b>	Special
Instrument Condition as Found					
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left % Error As Left
0%	4	0	0	0.000	0 0.000
25%	8	25	25	0.000	25 0.000
50%	12	50	50	0.000	50 0.000
75%	16	75	75	0.000	75 0.000
100%	20	100	100	0.000	100 0.000
Comments					
Calibration Equipment Used					
Calibrator	Description	Model No.		Instrument ID	NIST Cert. No.
Input Device	<b>Fluke Calibrator</b>	<b>725</b>		<b>On File</b>	<b>On File</b>
Output Device	<b>Local Display</b>				
Approvals					
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By		Date Signed	
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature			

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>			Contract/P.O. No.			
Application/Service <b>Tar Tank Control Box</b>			Tag No. <b>TTCB-IP</b>			
Manufacturer <b>Brandt</b>		Model No. <b>STD5131</b>		Serial No. <b>M513000F-16278</b>		
Instrument	<b>X</b>					
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer	
Accuracy	Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading			
Input Signal Range and Units						
Lo Range Value <b>4</b>	Hi Range Value <b>20</b>	Units <b>MADC</b>	Characteristic <b>Linear</b>	Special		
Output Signal Range and Units						
Lo Range Value <b>3</b>	Hi Range Value <b>15</b>	Units <b>PSIG</b>	Characteristic <b>Linear</b>	Special		
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	4	3	1.996	-8.367	1.996	-8.367
25%	8	6	3.856	-17.867	3.856	-17.867
50%	12	9	7.870	-9.417	7.870	-9.417
75%	16	12	9.990	-16.750	9.990	-16.750
100%	20	15	13.990	-8.417	14.980	-0.167
Comments						
IP BAD NEED TO REPLACE						
Calibration Equipment Used						
Calibrator	Description	Model No.	Instrument ID	NIST Cert. No.		
Input Device	Fluke Calibrator	725	On File	On File		
Output Device	Fluke Calibrator	725	On File	On File		
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By	Date Signed			
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>		Contract/P.O. No.				
Application/Service <b>Tar Tank Control Box</b>		Tag No. <b>TTCB-MAG</b>				
Manufacturer <b>Magnehelic</b>	Model No. <b>2000-oc</b>		Serial No. <b>R98085RM15</b>			
Instrument <b>X</b>						
Type	Transmitter	Indicator	Controller	Recorder	Gauge	Thermometer
Accuracy	Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading			
Input Signal Range and Units						
Lo Range Value <b>0.10</b>	Hi Range Value <b>0.50</b>	Units <b>PSIG</b>	Characteristic <b>Linear</b>	Special		
Output Signal Range and Units						
Lo Range Value <b>0.10</b>	Hi Range Value <b>0.50</b>	Units <b>PSIG</b>	Characteristic <b>Linear</b>	Special		
Instrument Condition as Found						
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left	% Error As Left
0%	0.10	0.10	0.10	0.000	0.10	0.000
25%	0.20	0.20	0.15	-12.500	0.15	-12.500
50%	0.30	0.30	0.15	-37.500	0.15	-37.500
75%	0.40	0.40	0.15	-62.500	0.15	-62.500
100%	0.50	0.50	0.15	-87.500	0.15	-87.500
Comments						
BAD NEED TO REPLACE						
Calibration Equipment Used						
Calibrator	Description	Model No.	Instrument ID	NIST Cert. No.		
Input Device	Fluke Calibrator	725	On File	On File		
Output Device	Local					
Approvals						
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By	Date Signed			
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature				

# PASS 3

## Calibration Certification

Customer Name <b>ABC Coke Plant</b>				Contract/P.O. No.	
Application/Service <b>Tar Tank Control Box</b>				Tag No. <b>TTCB-PT</b>	
Manufacturer <b>Ashcroft</b>		Model No. <b>1XLDP</b>		Serial No. <b>81000122</b>	
Instrument	<b>X</b>				
Type	Transmitter	Indicator	Controller	Recorder	Gauge Thermometer
Accuracy	Plus <b>2.0</b>	Minus <b>2.0</b>	<input checked="" type="checkbox"/> % of Span <input type="checkbox"/> % of Reading		
Input Signal Range and Units					
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH20</b>	Characteristic <b>Linear</b>	Special	
Output Signal Range and Units					
Lo Range Value <b>-2</b>	Hi Range Value <b>14</b>	Units <b>INH20</b>	Characteristic <b>Linear</b>	Special	
Instrument Condition as Found					
Calibration Point	Actual Input	Expected Output	Actual Output as Found	% Error As Found	Actual Output as Left % Error As Left
0%	-2	4			
25%	2	8			
50%	6	12			
75%	10	16			
100%	14	20			
Comments					
Will not calibrate told Charlie needs to be replaced					
Reading 4 " high					
Calibration Equipment Used					
Calibrator	Description	Model No.	Instrument ID	NIST Cert. No.	
Input Device	<b>HAND PUMP</b>	<b>DWYER</b>			
Output Device	<b>Fluke Calibrator</b>	<b>725</b>	<b>On File</b>	<b>On File</b>	
Approvals					
Hours <b>1.0</b>	Date Work Performed <b>10/14/2010</b>	Accepted By	Date Signed		
PASS 3 Signature <b>JOHN HORTON</b>		Customer Signature			